

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of the Claims:

Claims 1-125 (Cancelled)

126. (Currently Amended) A method for cleaning an object selected from the group consisting of metal parts, electronic components, electronic assemblies and printed circuit boards so as to remove at least one contaminant selected from lapping and polishing pastes, adhesives, solder pastes and fluxing agent residues, the method comprising:

preparing an azeotropic liquid cleaning composition consisting of about 65%-99% by weight water and about 1-35% by weight of one or two glycol ethers, optionally including at least one compound selected from an amine compound, furfuryl alcohol and tetrahydrofurfurylalcohol, wherein the concentration of the at least one glycol ether is selected such that the liquid cleaning composition forms a two-phase solution at the cleaning temperature, in which the first phase primarily comprises the at least one glycol ether and the second phase is aqueous, which two-phase solution forms a glycol ether-in-water emulsion while at least one of agitation, intensive movement during transfer by pumping and ultrasound is applied to the solution at the cleaning temperature, and

contacting the object with the liquid cleaning composition at the cleaning temperature while the liquid cleaning composition is maintained in the state of being the emulsion, in which a plurality of glycol ether-rich droplets are suspended in a continuous aqueous phase, for at least a portion of the time that the liquid cleaning composition contacts the object, wherein both the glycol ether-rich droplets and the continuous aqueous phase contact the object and the at least one contaminant is effectively removed from the object by the liquid cleaning composition.

127. (Currently Amended) A method as in claim 126, wherein the at least one glycol ether is selected from the group consisting of propylene glycol ether, dipropyleneglycolmono-n-propylether, tripropyleneglycolmonomethylether and dipropyleneglycolmonomethylether.

128. (Previously Presented) A method as in claim 127, wherein the amine compound is selected from the group consisting of 1-aminobutanol-2; monoisopropanolamine; 2-amino-2-methylpropanol-1; 2-amino-2-methylpropanediol-1,3; 3-(aminomethyl)pyridine; ethanolamine; furfurylamine; aminoacetaldehydedimethylacetal; 4-aminomorpholine; 1-methylimidazole; 1,2-dimethylimidazole; 1-vinylimidazole; 1,4-diazabicyclo[2.2.2]octane (DABCO); 1,5-diazabicycle[4.3.0]non-5-ene; and 1,8-diazabicyclo[5.4.0]undec-7-ene.

129. (Previously Presented) A method as in claim 128, wherein the one or two glycol ethers comprise between 3 and 25% by weight of the liquid cleaning composition.

130. (Previously Presented) A method as in claim 129, wherein the liquid cleaning composition is free of surfactants.

131. (Previously Presented) A method as in claim 126, wherein all components of the liquid cleaning composition are fully dissolved in each other at about 20-25°C.

132. (Previously Presented) A method as in claim 131, wherein the cleaning temperature is between about 40-60°C.

133. (Previously Presented) A method for cleaning an object selected from the group consisting of metal parts, electronic components, electronic assemblies and printed circuit boards so as to remove at least one contaminant selected from lapping and polishing pastes, adhesives, solder pastes and fluxing agent residues, the method comprising:

contacting the object with an azeotropic liquid cleaning composition consisting essentially of 65%-99% by weight water and the rest being substantially a glycol

ether component, the azeotropic liquid cleaning composition being at a cleaning temperature when contacting the object, wherein the concentration of the at least one glycol ether is greater than the solubility of the at least one glycol ether in water at the cleaning temperature, such that the liquid cleaning composition is a two-phase solution at the cleaning temperature, and wherein the liquid cleaning composition also has the property of forming a fully-miscible, one-phase liquid, such that all components are fully miscible or dissolved with each other, at a temperature that is lower than the cleaning temperature, and

maintaining the liquid cleaning composition in the state of an emulsion, in which a plurality of glycol ether-rich droplets are suspended in a continuous aqueous phase, for at least a portion of the time that the liquid cleaning composition contacts the object at the cleaning temperature, wherein both the glycol ether-rich droplets and the continuous aqueous phase contact the object and the at least one contaminant is highly effectively removed from the object by the liquid cleaning composition.

134. (Previously Presented) A method as in claim 133, wherein the liquid cleaning composition is maintained in the state of a plurality of glycol ether-rich droplets suspended in a continuous aqueous phase by at least one of (i) agitating the liquid cleaning composition, (ii) intensive movement during transfer by pumping and (iii) applying ultrasound to the liquid cleaning composition.

135. (Previously Presented) A method as in claim 133, wherein water comprises at least 75% by weight of the liquid cleaning composition.

136. (Currently Amended) A method as in claim 133, wherein the liquid cleaning composition further comprises at least one of an amine compound, furfuryl alcohol and tetrahydrofurfurylalcohol.

137. (Previously Presented) A method as in claim 136, wherein the amine compound is selected from the group consisting of l-aminobutanol-2; monoisopropanolamine; 2-

amino-2-methylpropanol-1; 2-amino-2-methylpropanediol-1,3; 3-(aminomethyl)pyridine; ethanolamine; furfurylamine; aminoacetaldehydedimethylacet al; 4-aminomorpholine; 1-methylimidazole; 1,2-dimethylimidazole; 1-vinylimidazole; 1,4-diazabicyclo[2.2.2]octane (DABCO); 1,5-diazabicycle[4.3.0]non-5-ene; and 1,8-diazabicyclo[5.4.0]undec-7-ene.

138. (Previously Presented) A method as in claim 137, wherein the glycol ether component is between 3 and 25% by weight of the liquid cleaning composition.

139. (Previously Presented) A method as in claim 138, wherein the azeotropic liquid cleaning composition is free of surfactants.

140. (Previously Presented) A method as in claim 133, further comprising evaporating the liquid cleaning composition to remove the at least one contaminant therefrom.

141. (Previously Presented) A method as in claim 141, further comprising condensing vapor generated by evaporating the liquid cleaning composition and reutilizing the condensed liquid cleaning composition to clean objects.

142. (Previously Presented) A method as in claim 133, wherein the at least one glycol ether is selected from the group consisting of propylene glycol ether, dipropyleneglycolmono-n-propylether, tripropyleneglycolmonomethylether and dipropyleneglycolmonomethylether.

143. (Previously Presented) A method as in claim 133, wherein all components of the liquid cleaning composition are fully dissolved in each other at about 20-25°C.

144. (New) A method for cleaning an object selected from the group consisting of metal parts, electronic components, electronic assemblies and printed circuit boards

so as to remove at least one contaminant selected from lapping and polishing pastes, adhesives, solder pastes and fluxing agent residues, the method comprising:

providing an azeotropic liquid cleaning composition consisting of 65%-99% by weight water and the rest being at least one glycol ether and at least one other compound selected from the group consisting of 3-methoxy-3-methylbutanol, furfuryl alcohol, tetrahydrofurfurylalcohol, 1-aminobutanol-2, monoisopropanolamine, 2-amino-2-methylpropanol-1, 2-amino-2-methylpropanediol-1,3, 3-(aminomethyl)pyridine; ethanolamine, furfurylamine, 4-aminomorpholine, 1-methylimidazole, 1,2-dimethylimidazole, 1-vinylimidazole, wherein the at least one glycol ether is or includes dipropyleneglycolmono-n-propylether,

contacting the object with the liquid cleaning composition at a cleaning temperature, wherein the concentration of the at least one glycol ether is greater than the solubility of the at least one glycol ether in water at the cleaning temperature, such that the liquid cleaning composition is a two-phase emulsion at the cleaning temperature, and

maintaining the liquid cleaning composition in the state of the emulsion, in which a plurality of glycol ether-rich droplets are suspended in a continuous aqueous phase, for at least a portion of the time that the liquid cleaning composition contacts the object at the cleaning temperature, wherein both the glycol ether-rich droplets and the continuous aqueous phase contact the object and the at least one contaminant is effectively removed from the object by the liquid cleaning composition.

145. (New) A method as in claim 144, wherein the at least one other component is at least one of furfuryl alcohol and tetrahydrofurfurylalcohol.